Recent results on the measurements of the P-odd correlations in the capture of slow polarized neutrons by ^{6}Li and ^{10}B

Yuri M. Gledenov[1], Victor A. Vesna[2], Ekaterina V. Shulgina[2], Pavel V. Sedyshev[1], Valeriy V. Nesvizhevsky[3], Alexander K. Petukhov[3], Torsten Soldner[3], Oliver Zimmer[4]

[1] *Joint Institute for Nuclear Research*
[2] *Petersburg Nuclear Physics Institute*
[3] *Institute Laue-Langevin*
[4] *Technishe Uneversitat Munchen*

Two experiments on the P-odd correlation measurement were carried out at the high intensity polarized cold neutron beam of the PF1B instrument of the ILL reactor, Grenoble, France. The triton emission asymmetry in the $^{6}Li(n,\alpha)^{3}H$ reaction and the asymmetry of the emitted γ-quanta at discharge of the ^{7}Li first excited state populated in the $^{10}B(n,\alpha)^{7}Li$ reaction were measured. In the experiments a special apparatus and measurement method were used. The preliminary results of the ^{6}Li and ^{10}B measurements are $\alpha^{t}_{PNC} = -(8.1 \pm 3.9)10^{-8}$ and $\alpha^{\gamma}_{PNC} = -(11.0 \pm 6.6)10^{-8}$, respectively. At the base of first result, the most accurate at present day estimation of the weak neutral current constant has been given: $f_{\pi} \leq 1.210^{-7}$. The results are discussed.

Email: gledenov@nf.jinr.ru